In order to review as to whether the amount of heat delivered to the chambers suffices for preheating the freshly entering gases, the necessary amounts of heat therefor are taken for comparison from the preceding table.
As apparent, the quantity of heat left behind in the chambers by reduction of the temperature of the waste gases to 700° suffices to warm the gas and air up from 0° to 1/200°; there remains even a small excess of heat, which could be radiated, but the losses from radiation are without question higher, but the gas generally comes into the chambers from the producers with a considerable available heat. Should this reserve not be sufficient (one will naturally as much as possible cover the chambers with good insulation, and as much asposniblo guard against small heat losses therefrom) there remains only one means, and that that one may not have utilised to its extreme maximum tho heat produced in the combustion chamber. One must thus produce more heat in the combustion chamber than is required in the same, and lot the flame strike into tho chambers.
Loss OF HKAT IN THIS WASTM GASKS IN OPRN-HKAUTH FUHNACK WORKING.
The extent of the utilisation of tho available hoat of tho waste gases depends on the temperature at which they are discharged. This outlet temperature stands in relation to tho size of tho chambers, and also to the temperature of tho freshly entering gases, and on tho intervals between reversals. II. II. Campbell comments on thin, relatively to tho effect of the temperature of tho heating gas, an follows :—
" It in well, liowever, to keep the principle in mind that if the gas is hot there is loss work for tho chamber to do, and the fact tbab the gases escaping to the chimney are at a high temperature has nothing to do with the ease, for if the entering gases are hot, tho escaping gases must be hotter."
And in another places :~
"Air always enters cold, but it is believed by some furnace men that it in economical to have the gas an hot an possible. To some extent this in an error, for the checkers in tho outer